2pm Briefing

City of Roanoke 2013 Community Greenhouse Gas (GHG) Emissions And Energy Summary

Roanoke City Council Meeting

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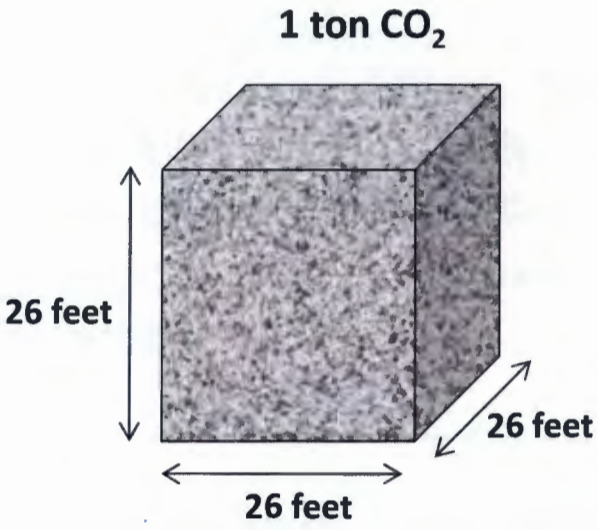
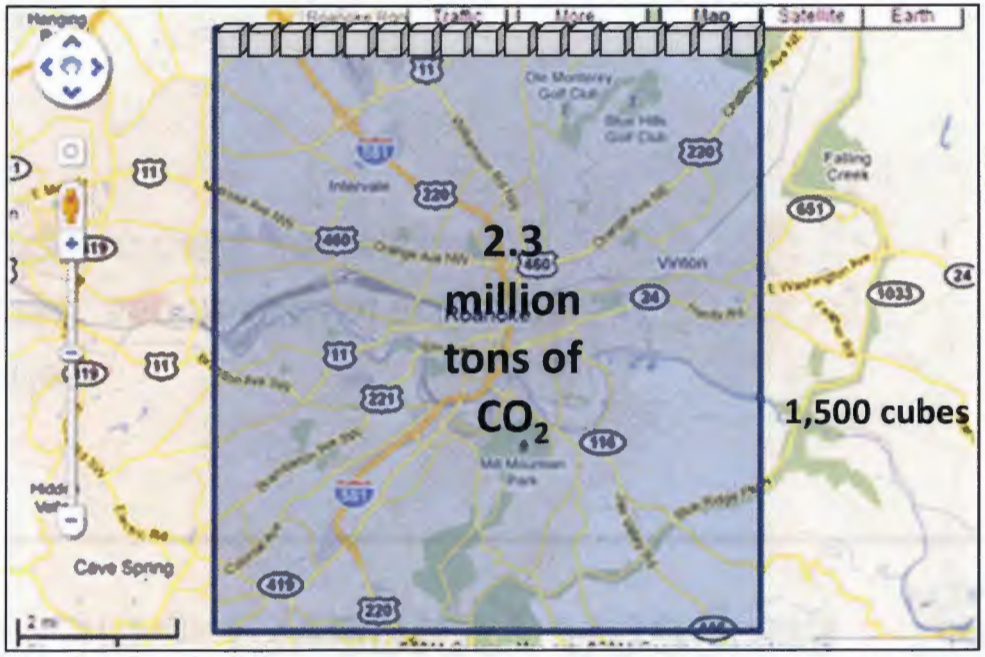
Roanoke GHG Emissions – Scale of Reduction

- Greenhouse gas emissions are measured using carbon dioxide as the reference, though these emissions include other gases
- 10% Carbon Dioxide Reduction = 230,000 tons
- City of Roanoke ~ 45,000 households
- 1 ton per household savings – *"Save a Ton"* Regional Campaign





1,500 cubes = 7.5 miles

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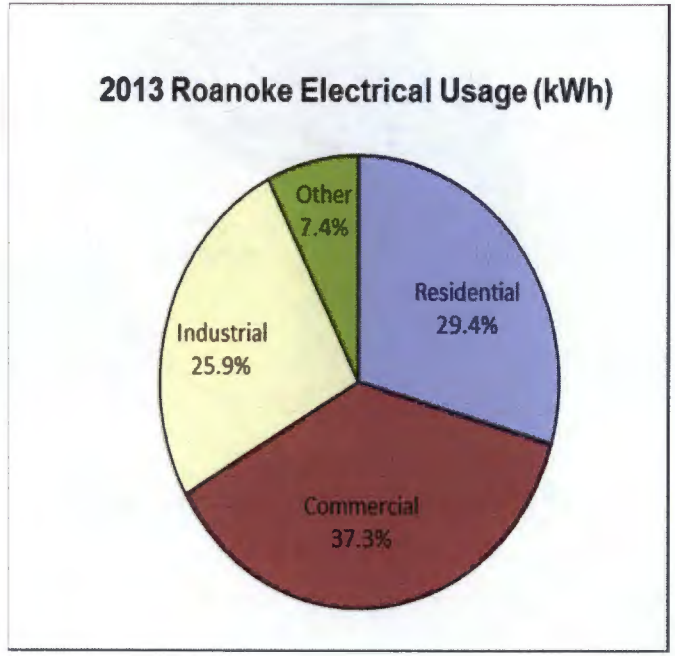
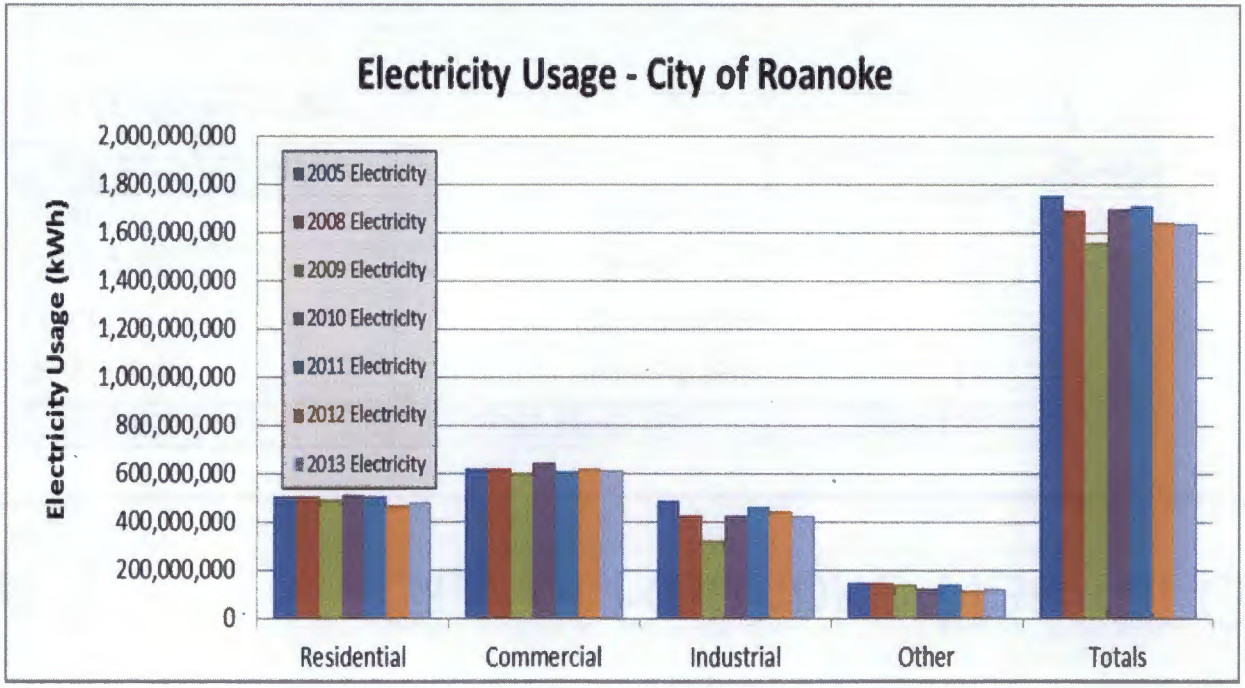
City of Roanoke Electricity Usage

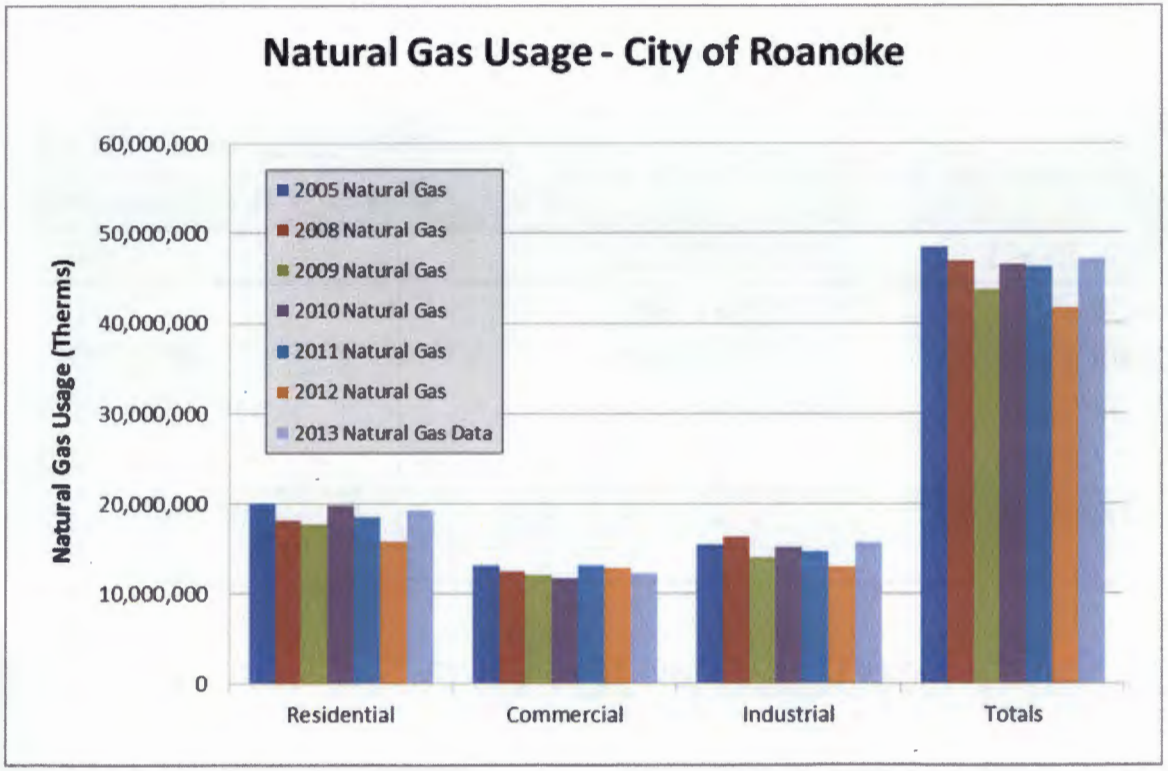
Sector	2005 (kWh)	2013 (kWh)
Residential	502,467,666	481,753,007
Commercial	616,360,103	611,367,951
Industrial	487,843,077	423,842,823
Other	145,349,802	121,429,959
Totals	1,752,020,648	1,638,393,740
Year-to-Year Change		**-0.5%**
Year-to-2005 Change		**-6.5%**

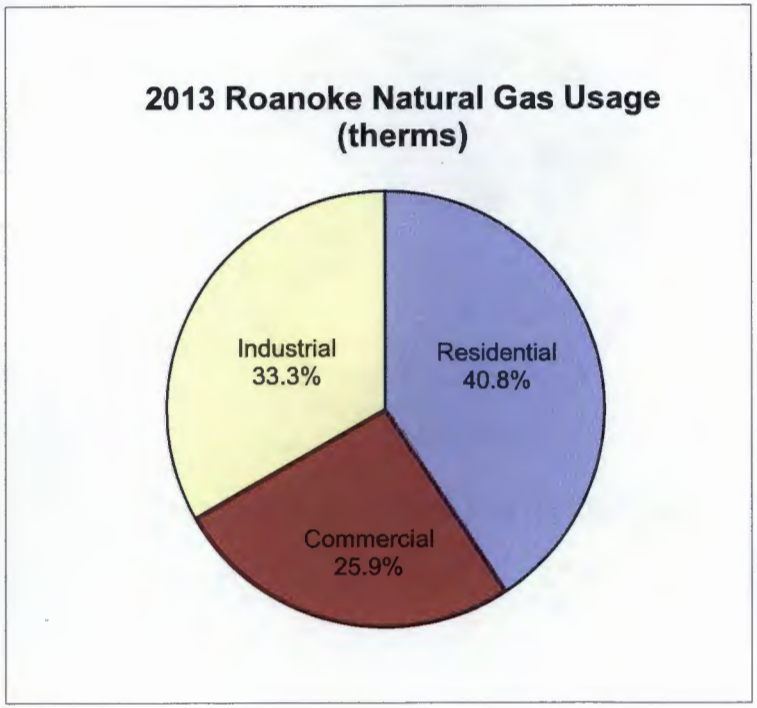




City of Roanoke Natural Gas Usage

Sector	2005 (therms)	2013 (therms)
Residential	19,967,493	19,233,865
Commercial	13,087,409	12,233,266
Industrial	15,435,141	15,715,510
Totals	48,490,043	47,182,641
Year-to-Year Change		***13.3%***
Year-to-2005 Change		***-2.7%***

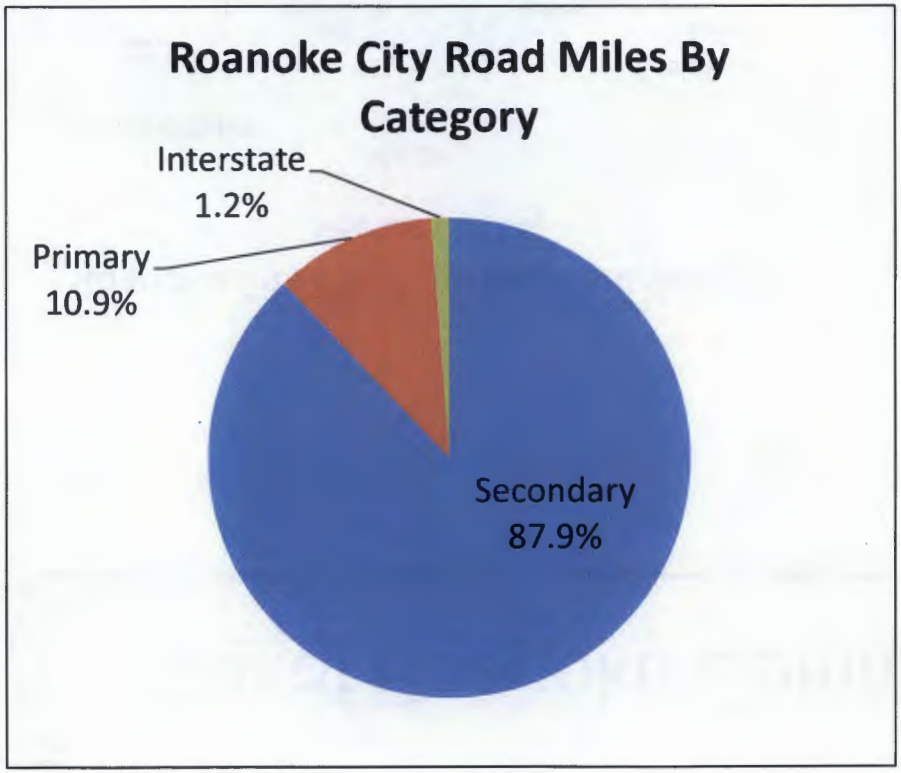


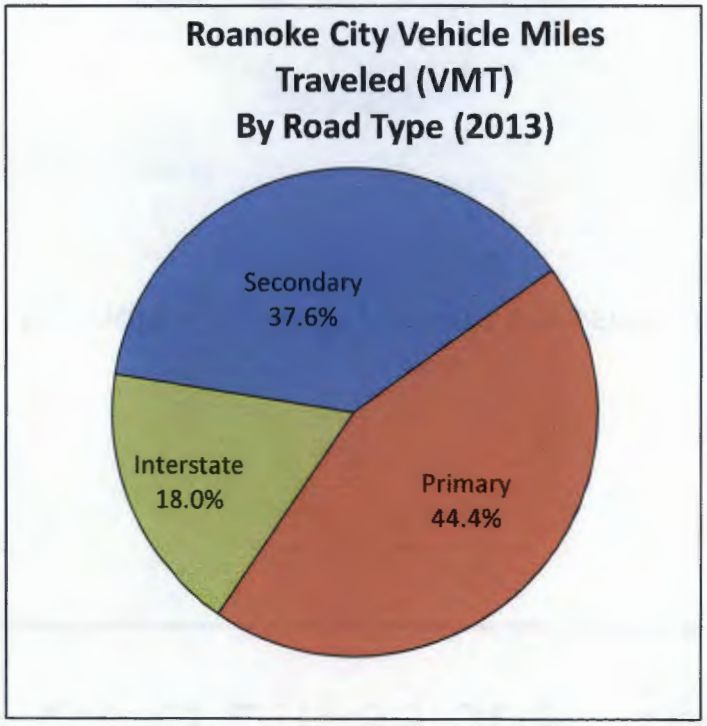


City of Roanoke VDOT Transportation Analysis

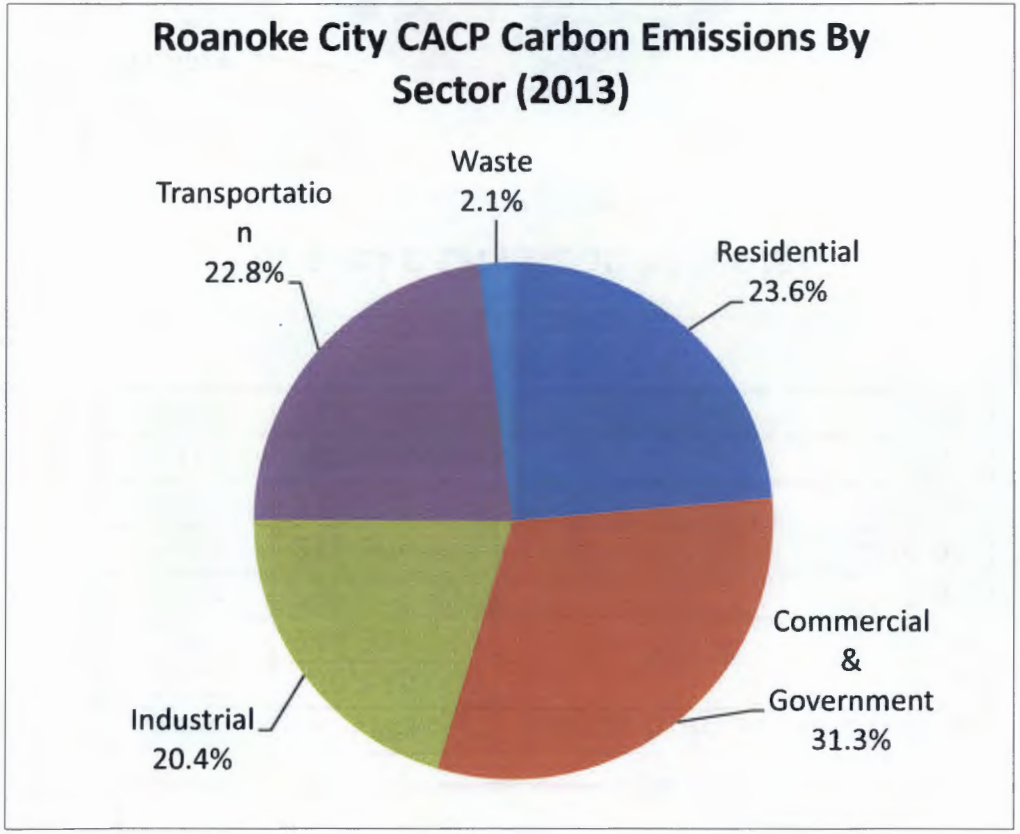
Year	VMT	Change from Baseline (2005)
2005	736,548,004	na
2008	744,814,259	+1.1%
2009	792,675,391	+7.6%
2010	816,696,781	+10.9%
2011	776,822,009	+5.5%
2012	751,636,835	+2.0%
2013	741,178,855	0.6%

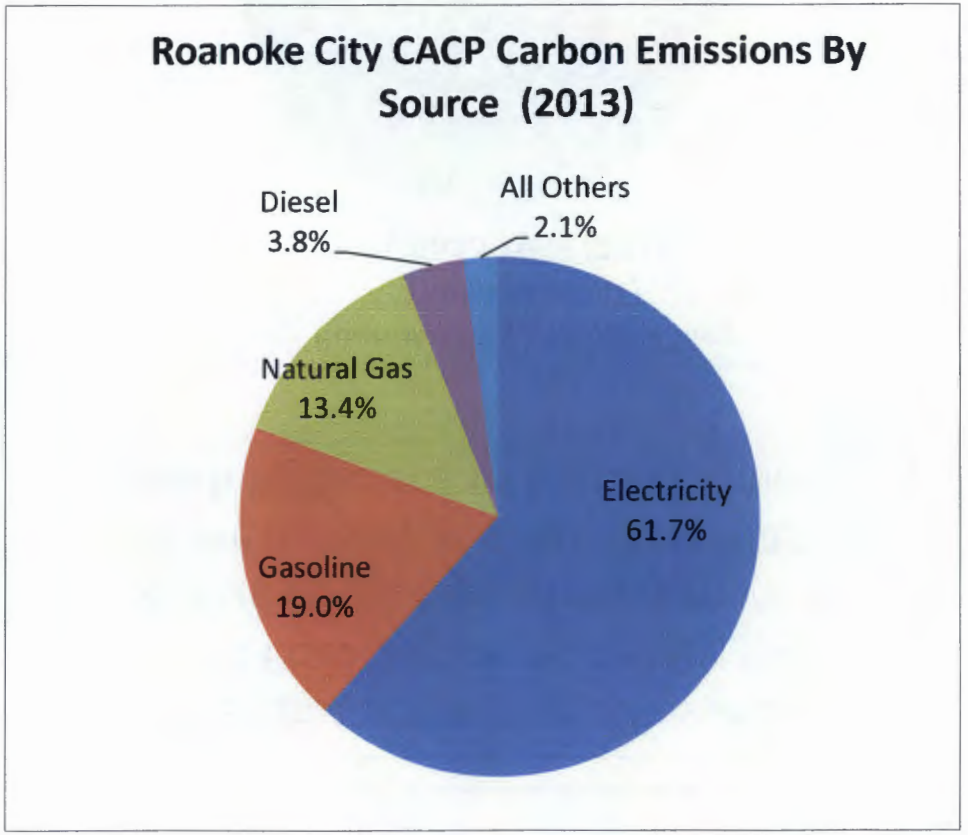
- While most of the road miles in the City of Roanoke are secondary, the relative percentage of miles traveled on the primary and interstate roads is much higher due to traffic volume.





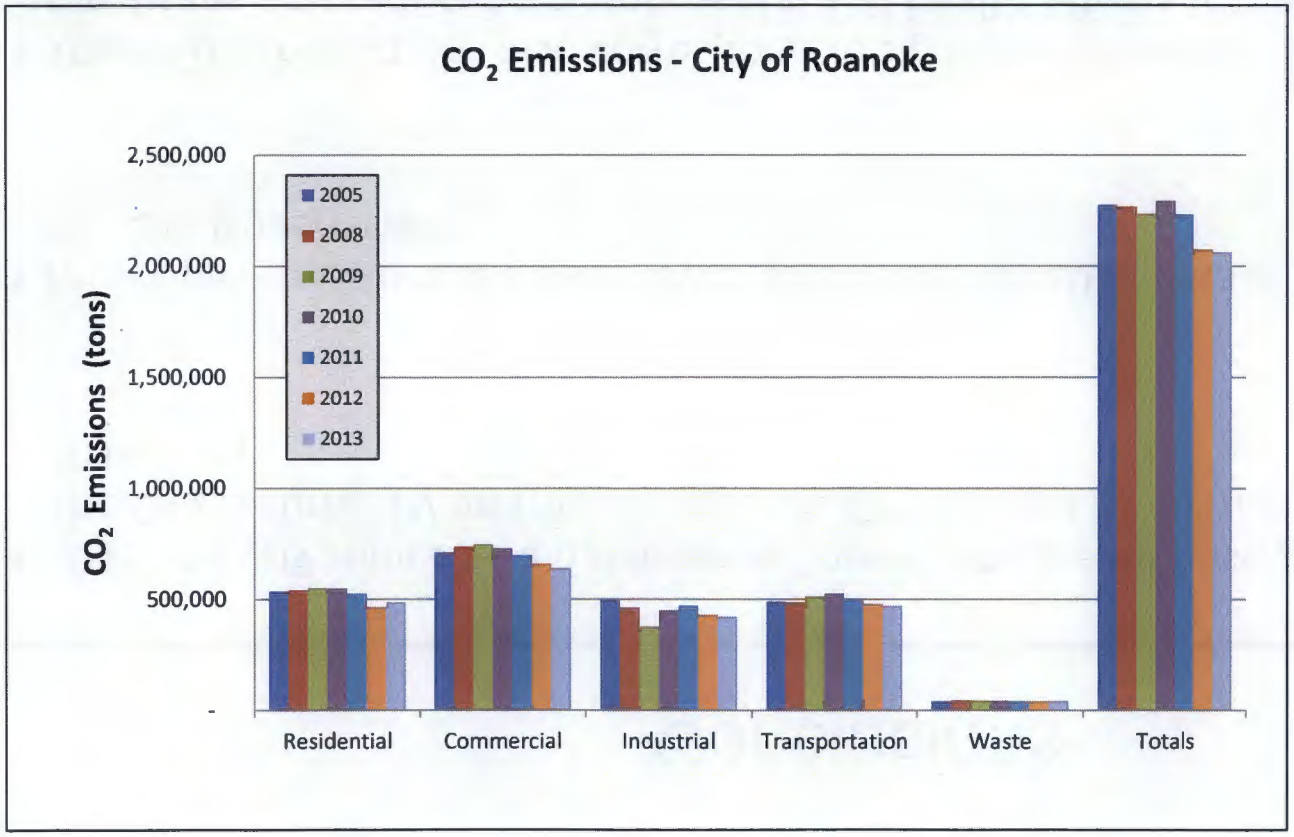
City of Roanoke Community GHG Emissions





City of Roanoke Community GHG Emissions

Sector	2005	2013	% Change	2013 (%)
Residential	536,056	486,781	-9.2%	23.6%
Commercial	711,951	640,698	-10.0%	31.1%
Industrial	497,160	421,053	-15.3%	20.4%
Transportation	489,149	470,357	-3.8%	22.8%
Waste	42,027	44,291	5.4%	2.1%
Totals	**2,276,343**	**2,063,180**	**-9.4%**	**100%**



- 2014 analysis is completed except for VDOT Transportation analysis. This data is published in June.
- Best estimate is 12% reduction which MEETS Goal.
- Municipal data still to be compiled but 2012 analysis showed 15% decrease and more than $575,000 savings

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Conclusions

- 2013 analysis indicates a decrease in Community greenhouse gas emissions of 9.4%. The City is currently on track to meet its City Council Resolution targets at the end of 2014.

- Municipal emissions are even lower and based on 2012 data will meet the higher goal for City Government.

- These GHG reductions also correspond to significant economic savings from decreased fuel usage and reduced environmental and health effects related to air and water quality.

- Sustainability requires continued leadership and initiatives in order to improve the environmental, health, and economics of the City for the future. As such, it is recommended that City Council should pass another resolution with a new target for the next 5 years.